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2. (Amended) The electrical assembly of claim 1, wherein the essentially parallel portions of corresponding pairs of traces pass over or under the aperture.

3. (Amended) The electrical assembly of claim 1, wherein the essentially parallel portions are coplanar with the voltage plane.

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4. The electrical assembly of claim 1, further comprising:
the off-assembly connections.

5. The electrical assembly of claim 1, including a semiconductor package,
wherein the off-assembly connections include pins, solder connections, leads, or wires;
and
wherein the traces are formed on the semiconductor package.

6. The electrical assembly of claim 1, including a board or card,
wherein the off-assembly connections include pins or leads of a semiconductor package
or solder connections or wires thereto; and
wherein the traces are formed on the board or card.

7. The electrical assembly of claim 1, including a board or card,
wherein the off-assembly connections include pins, leads, solder connections or edge
connectors; and
wherein the traces are formed on the board or card.

8. The electrical assembly of claim 1, including a semiconductor package,
wherein the off-assembly connections include pins, solder connections, leads, or wires.

9. The electrical assembly of claim 1,
wherein the traces and the off-assembly connections are on opposing sides of the
electrical assembly; and
wherein an electrical connection between a trace and a respective off-assembly
connection includes a plated through hole or conductive via.

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10. (Amended) The electrical assembly of claim 1,
wherein the off-assembly connections are organized as an array thereof; and
wherein, for each of the traces, one or more of the integrated transformer structures are
defined therealong to induce respective of the compensating crosstalk signals and
thereby oppose respective of the initial crosstalk signals introduced at a
corresponding one of the off-assembly connections by nearest off-assembly
connections of said corresponding one of the off-assembly connections.

11. (Amended) The electrical assembly of claim 10,
wherein the array is linear;
wherein the nearest off-assembly connections number two; and
wherein, for essentially each of the traces, two of the integrated transformer structures are
defined therealong to induce respective of the compensating crosstalk signals and
thereby oppose respective of the initial crosstalk signals introduced by the nearest
off-assembly connections.

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12. The electrical assembly of claim 1, wherein the off-assembly connections include
one of pins, solder joints, leads, and wires.

13. The electrical assembly of claim 1, wherein the electrical assembly includes an
integrated circuit chip.

14. The electrical assembly of claim 1, wherein the electrical assembly includes a chip
carrier or package.

15. The electrical assembly of claim 1, wherein the electrical assembly includes a board
or card.

23. An electrical assembly comprising:
at least a portion of a crosstalk compensation circuit defined thereon for offsetting an original crosstalk signal induced at a first off-assembly connection by one or more signals on one or more adjacent off-assembly connections; and
electrical traces traversing apertures defined in one or more voltage planes of the assembly to inductively couple compensating crosstalk signals having opposing polarity to the original crosstalk signal.
24. The electrical assembly of claim 23,
wherein the electrical traces are respectively coupled to the first and adjacent connections.
25. An electrical assembly comprising:
traces extending toward respective off-assembly connections; and
means defined along the traces for inducing compensating crosstalk signals having opposing polarity to initial crosstalk signals associated with mutual coupling between adjacent of the off-assembly connections.
26. The electrical assembly of claim 25, wherein the means for inducing compensating crosstalk signals include:
an aperture in a voltage plane of the electrical assembly; and
essentially parallel portions of a correspond pair of the traces, the essentially parallel portions coplanar with the voltage plane and traversing the aperture therein.
27. The electrical assembly of claim 25,
wherein the means for inducing compensating crosstalk signals include integrated transformer structures defined along the traces.
28. The electrical assembly of claim 25, wherein the means for inducing compensating crosstalk signals define at least a portion of a crosstalk compensation circuit.

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